

Claims

1. A dispenser comprising attachment means for attachment to a container, a reservoir for holding material, a barrier means to prevent the material entering the container, wherein the barrier means is removable by manipulation of the dispenser, thereby permitting the material to be selectively dispensed into the container.
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2. A dispenser according to claim 1 wherein closure means is provided in the dispenser to permit material to be removed from a container to which the dispenser may be attached via the dispenser without the need to remove the dispenser from the container.
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3. A dispenser according to claim 2 wherein a conduit extending through the dispenser permits the removal of material from the container whilst bypassing the reservoir.
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4. A dispenser or container assembly according to claim 2 wherein the dispenser is arranged so as to permit the removal of material via the reservoir.
- 20 5. A dispenser according to any one of claims 2 to 4 wherein the closure means is arranged such that manipulation thereof further causes the material to be selectively dispensed.
6. A dispenser according to any one of claims 2 to 5 wherein the closure means is reclosable.
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7. A dispenser according to claim 6 wherein the closure means is a sports cap.
8. A dispenser according to any preceding claim wherein the dispenser further comprises means to substantially equalise the pressure in the reservoir or to supply a positive pressure relative to a container to which the dispenser is attachable.
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9. A dispenser according to any preceding claim comprising a first portion and a second portion.
10. A dispenser according to claim 9 wherein the first portion comprises the reservoir.
11. A dispenser according to claim 9 or claim 10, wherein the second portion comprises the attachment means.
12. A dispenser according to any one of claims 9 to 11, wherein at least one of the first and second portions are arranged so as to be movable by manipulation of the dispenser from a first closed position in which the barrier means is in place to a second open position in which the barrier means is removed.
13. A dispenser according to claim 12, wherein the movement from the first position to the second position comprises a vertical or an axial movement.
14. A dispenser according to claim 13 wherein the movement further comprises a rotational movement.
15. A dispenser according to claim 14 arranged such that the rotational movement must precede the axial movement.
16. A dispenser according to claim 14 or 15 wherein the movement is controlled by a cam and cam follower arrangement.
17. A dispenser according to claim 16 wherein the cam comprises a recess or surface and the follower comprises a projection or pin.
18. A dispenser according to claims 13 to 17 wherein the axial movement slidably reveals a hole to remove the barrier means.

19. A dispenser according to any one of claims 13 to 18, wherein the vertical or axial movement is a movement of the first portion away from the second portion.

20. A dispenser according to any one of claims 13 to 19, wherein the barrier means
5 comprises a plug, the plug being arranged to block a hole in the first position and to be lifted clear of the hole in the second position.

21. A dispenser according to any one of claims 13 to 20, wherein the first portion
10 is integrally formed, preferably by moulding.

22. A dispenser according to claim 19, wherein the barrier means comprises a first
wall provided on the first portion and a second wall provided on the second portion, the
first wall being provided with a first through hole and the second portion being
provided with a second through hole, the holes being out of register, the first wall being
15 in face contacting relationship with the second hole in the first position and out of face
contacting relationship in the second position.

23. A dispenser according to claim 12, wherein an angular relationship between
the first portion and the second portion provides the barrier means.

24. A dispenser according to claim 23, wherein a first wall is provided with a first
through hole and a second wall is provided with a second through hole.

25. A dispenser according to claim 24, wherein the movement from the first to the
25 second position is a rotational movement.

26. A dispenser according to claim 23 wherein means is provided in the dispenser
to convert angular movement between the first portion and the second portion into a
vertical or axial movement so as to remove the barrier means.

27. A dispenser according to any one of claims 1 to 12, wherein a first wall
30 comprises the barrier means.

28. A dispenser according to claim 27, wherein the first wall is frangible or piercable to permit the selective dispensing of the material.
- 5 29. A dispenser according to claim 28, wherein piercing means is provided on the first portion.
30. A dispenser according to claim 28, wherein piercing means is provided on the second portion.
- 10 31. A dispenser according to claim 28, wherein the first wall is provided on the second portion.
32. A dispenser according to claim 28, wherein piercing means is provided on the first portion.
- 15 33. A dispenser according to claim 30 or claim 32, wherein the piercing means is associated with a through hole.
- 20 34. A container assembly comprising a container and a dispenser according to any one of claims 1 to 11, wherein a first wall is secured to the container proximate a mouth or opening of the container.
35. A container assembly according to claim 34 wherein the dispenser is provided with piercing means to pierce the first wall.
- 25 36. A container assembly according to claim 34 wherein a second wall is provided on the dispenser.
- 30 37. A container assembly according to claim 36 wherein the spatial relationship between a first wall and a second wall provides the barrier means.

38. A dispenser according to any one of claims 28 to 33, or a container assembly according to claim 33, wherein relative movement between the first portion and the second portion enables the first wall to be pierced.

5 39. A dispenser or a container assembly according to any preceding claim comprising a scale provided on the reservoir to enable a predetermined amount of material to be dispensed.

40. A container assembly comprising a container and a dispenser according to any
10 one of claims 1 to 33 or 38.